

**SOCIAL SCIENCE TEACHERS' PEDAGOGICAL CONTENT KNOWLEDGE: A
CASE STUDY AT GENERAL SECONDARY SCHOOL LEVEL IN BANGLADESH**

by

Mohammad Ali Zinnah

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DEDICATION

To

My father Md. Hyder Ali, mother Mrs. Zeb-un-Nesa

My beloved sons

Shadman Araf, Iffat Anan and Rumman Adib

And

Their very caring and loving mother

Khursheda Akter

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LIST OF ABBREVIATIONS

AI	Assistant Inspector
AUSEO	Assistant Upazila Secondary Education Officer
BANBEIS	Bangladesh Bureau of Educational Information and Statistics
B. Ed.	Bachelor of Education
BISE	Board of Intermediate and Secondary Education
BOU	Bangladesh Open University
CAMPE	Campaign for Popular Education
CPD	Continuous Professional Development
DC	District Commissioner
DEO	District Education Officer
DIA	Directorate of Inspection and Audit
DSHE	Directorate of Secondary and Higher Education
GB	Governing Body
GoB	Government of Bangladesh
HSC	Higher Secondary Certificate
HSTTI	Higher secondary Teachers' Training Institute
ITEC	Individual Textbook Evaluation Committee
MDGs	Millennium Development Goals
MoE	Ministry of Education
MoPME	Ministry of Primary and Mass Education
NCSS	National Council for the Social Studies
NCTB	National Curriculum and Textbook Board
NGO	Non-Government Organization

NTRCA	Non-Government Teachers' Registration and Certificate Authority
NU	National University
RO	Research Officer
SBA	School Based Assessment
SESDP	Secondary Education Sector Development Project
SMC	School Managing Committee
SPBMS	School Performance Based Management System
SSC	Secondary School Certificate
STC	Secondary Teaching Certificate
TQI-SEP	Teaching Quality Improvement in Secondary Education Project
TTC	Teachers' Training College
UAS	Upazila Academic Supervisor
UGC	University Grants Commission
UNO	Upazila Nirbahi (administrative) Officer
USEO	Upazila Secondary Education Officer

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PENGETAHUAN ISI KANDUNGAN PEDAGOGI GURU SAINS SOSIAL: SATU KAJIAN KES DI PERINGKAT SEKOLAH MENENGAH DI BANGLADESH

ABSTRAK

Kajian kes pelbagai ini mengkaji pengetahuan pedagogi isi kandungan (PPI) guru Sains Sosial serta faktor-faktor yang menggalakan atau mengekang PPI mereka dalam mengajar Sains Sosial pada peringkat pendidikan sekolah menengah di Bangladesh. Model Penaklukan dan Tindakan Pedagogi Shulman (1987) telah digunakan sebagai model teoretis kajian ini. Lima orang guru daripada sebuah sekolah kerajaan, tiga sekolah bukan-kerajaan dan sebuah sekolah khas telah dipilih secara bertujuan sebagai peserta kajian ini. Pelbagai teknik termasuk temuduga sebelum dan selepas pemerhatian, pemerhatian terhadap pengajaran dalam kelas, dan analisis dokumen serta nota lapangan telah digunakan bagi mengutip data kajian. Sembilan belas pemberi maklumat lain telah dipilih bagi mendapatkan data lanjutan melalui temuduga. Data telah dianalisis semasa pengutipan data bagi membina kefahaman yang mendalam terhadap fenomena yang dikaji, disamping sebagai panduan mendapatkan data daripada peserta kajian. Data akhir kajian telah dianalisis melalui langkah-langkah tertentu ke arah menemui dapatan kajian. Kesahan dan kebolehpercayaan data dan dapatan kajian juga diawasi. Dapatan menunjukkan bahawa komponen PPI dimiliki dan diamalkan oleh guru-guru, tetapi tidak pada tahap yang sama. Malah mereka memiliki dan mengamalkan komponen-komponen PPI tersebut pada tahap rendah atau sederhana. Amalan mereka dalam komponen-komponen PPI tertentu adalah rendah atau sederhana walaupun mereka memiliki pengetahuan pada tahap tinggi. Seterusnya, para peserta kajian tidak memberi perhatian bagi mengaplikasikan kefahaman isi kandungan dan pedagogi mereka dalam mengajar pelajaran-pelajaran baru seterusnya.

Dapatan kajian seterusnya menunjukkan faktor-faktor peribadi dan faktor-faktor di dalam dan di luar bilik darjah telah mengekang mereka daripada mengamalkan komponen-komponen PPI. Sebagai satu implikasi penting, kajian ini menimbulkan bahawa walaupun PPI adalah domain pengetahuan peribadi guru, namun, perkembangannya yang koheren dan berkesan dalam mengajar Sains Sosial bergantung kepada usaha bersama dan kerjasama daripada para peserta serta pihak pengurusan pendidikan dan badan pentadbiran pada setiap peringkat. Kajian ini juga mengutarakan bahawa Model Penaklukan dan Tindakan Pedagogi Shulman (1987) mampu dipraktikkan dalam mengajar Sains Sosial pada peringkat pendidikan menengah di Bangladesh. Namun, ini bergantung kepada keupayaan menangani faktor-faktor peribadi para guru serta menghadapi halangan-halangan akademik, pentadbiran, kurikulum, pedagogi, kontekstual, dan kewangan guru. Walaupun kajian ini mempunyai keterbatasan kontekstual, ia mengesyorkan agar galakan diberi kepada perkembangan amalan PPI yang koheren dan berkesan dalam mengajar Sains Sosial di kalangan para guru dalam konteks yang sama. Akhirnya, kajian ini menyokong usaha pembangunan pendidikan menengah yang berkualiti yang akan menyumbang kepada pembangunan negara Bangladesh.

SOCIAL SCIENCE TEACHERS' PEDAGOGICAL CONTENT KNOWLEDGE: A CASE STUDY AT GENERAL SECONDARY SCHOOL LEVEL IN BANGLADESH

ABSTRACT

This multiple-case study investigates Social Science teachers' Pedagogical Content Knowledge (PCK), and factors that facilitate or inhibit their PCK in teaching Social Science at the general secondary level education in Bangladesh. Shulman's (1987) model of Pedagogical Reasoning and Action was used as the theoretical model in this study. Five teachers were purposeful selected from one government, three non-government and one specialized general secondary schools to participate in this the study. Multiple techniques including pre- and post-observation interviews with the teacher participants, observations of their classroom teaching, and analysis of documents were used for collecting the data. Nineteen other informants were selected to gain further data through interviewing. Data were analyzed during the period of data collection to develop deeper understanding of the phenomena under investigation, as well as to guide in seeking appropriate data from the participants. The final data were analyzed in different steps to arrive at the findings. The validity and reliability of the data and the findings were maintained. The findings have demonstrated eight components of PCK that the participants possessed and practiced, but not at equal level. Rather, they possessed and practised most of those components of PCK at low or medium level. Their practice of several components of PCK was low or medium, even those which they possessed at high level. Furthermore, the participants had lack of concern to apply their new subject matter and pedagogical comprehension in teaching subsequent new lessons. The findings further revealed that the participants' personal factors as well as factors within and outside the classroom inhibited their practice of those

components of PCK. As an important implication, this study highlighted that although PCK is teachers' personal knowledge domain, yet, its coherent development and effective practice in teaching Social Science depends on the mutual and cooperative efforts of the participants as well as the concerned educational management and administrative bodies at different levels. This study also highlighted that Shulman's (1987) ideal model of Pedagogical Reasoning and Action is possible to be practiced in teaching Social Science at the general secondary level education of Bangladesh. However, this is contingent upon addressing the personal factors of the participants as well as solving their academic, administrative, curricular, pedagogical, contextual, and financial constraints. Although this study possesses contextual limitations, it recommends on facilitating coherent development and effective practice of PCK in teaching Social Science among teachers within similar context. Finally, this study supports in the development of quality secondary education, which in turn, contributes to the national development of Bangladesh.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Educationists like Cuban (1991) and Armento (1986) emphasize the need to explore the different factors in studying pedagogy. This study is on knowledge as a factor of pedagogy, called Pedagogical Content Knowledge (PCK). The general view of the construct of PCK is the knowledge for representing particular content in an understandable way considering the needs and specific characteristics of students in the classroom. Towards the end of the 1980s, Lee S. Shulman first brought the concept of PCK into the field of education in the USA. According to Shulman (1987), PCK is the teachers' own knowledge domain and professional understanding to blend content and pedagogy that they apply in teaching a particular topic to a group of students in the classroom considering their general and special characteristics. In subsequent years, it has become a commonly accepted construct in the educational community. Many researchers have found the potentialities of PCK for effective teaching of different disciplines such as English, Mathematics, Sciences, Nutrition, Physical Education, Geography, etc. A number of researchers for instance, Seixas (2001) and Stanley (1991) have also suggested incorporating PCK in teaching Social Studies, the subject matter which is the concern of this study. A number of different researches had revealed the significance of PCK in teaching of Social Studies; and this will be discussed in Chapter Two.

In relation to this study's focus, Bangladesh is taking steps to improve the quality of teaching at general secondary school level by developing teachers' PCK, including Social Science teachers. This study explores the PCK of the Social Science teachers at

general secondary school level in Bangladesh. This introductory chapter presents the background of study, the statement of the problem, rationale of the study, the objectives of the study, research questions, and significance of the study, followed by the definition of the key terms.

1.1 Background of the Study

Educational philosophers like Plato, Rousseau, Wollstonecraft, Dewey, Freire, and others revealed the contributing role of education for a good life in a good society. Education ideally transmits values such as integrity, equality and social justice, and the sense of shared responsibility to contribute in social cohesion and good governance (Meier & Griffin, 2005). The UNESCO (2000) recognizes the key role of education towards sustainable development, and promoting peace and solidarity within and among countries. The UNESCO (2000) also considers education as an essential means to promote effective participation in the societies and economies of the twenty-first century within the influence of rapid globalization. The demands of the new global economy, culture, and polity have increased roles and challenges of education to be able to develop more informed, participatory, and active citizenship (Kellner, 2000). Therefore, a major restructuring in contemporary education with new curricula, pedagogy, and an expanded concept of literacy, skills, competencies, practices, and the goal is needed (Ong, 1988).

The UNESCO (2000) urges that a certain proportion of the workforce of a country attain or complete secondary education if it expects to keep up with development in the context of the modern and open economy. The UNESCO (2000) also emphasizes providing with the opportunity to all young people and adults so that they attain

capacities to work, can participate fully in their society, and become able to take control of their own lives and to continue learning. Another scholar such as Lewin, (2005) also considers that secondary education provides opportunity to acquire attitudes, skills and competencies to young people that are needed in the labour market and promoting effective civil participation and support their further self-development. The 2006 International Labour Organization (ILO) study reveals that children earn only 20 per cent income of an adult's earning, while cost-benefit analysis for educating a child works out seven times returns (ICCLE, 2006). The UNESCO International Commission on Education for the 21st Century identifies a set of life skills for the youth under four categories: (i) skills and personal fulfillment, (ii) skills for living in society, (iii) skills for dealing with changing economies, and (iv) skills for dealing with changing work patterns (Delors, 1996). In order to meet these priorities, Bangladesh needs huge human resources with essential knowledge and skills, and democratic values and attitude. For this, quality education is needed for students especially for the students undergoing secondary education -- in line with the four pillars of education (as learning to know, learning to do, learning to live, and learning to be) -- as pronounced in the Report of the 1996 UNESCO International Commission on Education for the 21st Century. Therefore, expansion of quality secondary education is increasingly recognized as a critical next step in national development (UNESCO Institute for Statistics, 2005).

The present education system in Bangladesh has three major stages: primary, secondary, and tertiary or higher education (Appendix A). Each stage has different curriculum and programs and institution set-ups. The secondary education level is a bridge between primary and tertiary education, where the real preparation of the work

force occurs. There are 113,000 schools, 700,000 teachers and 30 million pupils in grades one through ten at primary and secondary levels (BANBEIS, 2004); with these numbers, the Bangladesh education system appears to be one of the largest educational enterprises in the world (Rahman, 2006). It is difficult for Bangladesh to manage such a large education system smoothly with the limited resources. As a developing country, Bangladesh is also passing through a phase of rapid socio-economic changes, along with many challenges and problems. In Bangladesh, there is a broad consensus regarding educational development priorities around a set of themes. These are: fighting poverty, promoting sustainable development, addressing globalization challenges, and upholding quality in education. There appears to be no controversy over the common themes, ever since the nation-wide discussion began (Ahmed, Ali & Khan, 2005).

Bangladesh has also taken various steps toward her education, especially at the primary and secondary levels, keeping pace with the international and global commitments. A considerable quantitative progress has been achieved particularly in primary and secondary education, in terms of enrolment, especially the girls' enrolment, expansion of the number of institutions, and the recruitment of female teachers (CAMPE, 2006; Rahman, 2006). Over the last two decades the Government of Bangladesh (GoB) has given the utmost importance to education, especially on the primary and secondary education. A good number of Non-government Organizations (NGOs) are also playing important roles in primary education. So far, Bangladesh has already achieved one of the Millennium Development Goals (MDGs) of UNESCO in the context of improving gender parity in primary and secondary schooling (World Bank, 2007; Ahmed & Chowdhury, 2005; Rahman, Asaduzzaman & Rahman, 2005). However, these

quantitative achievements are not the only aim of Bangladesh; but the present thrust of the government of Bangladesh is also to achieve the quality in education, especially in primary and secondary education that seems to be affected by different factors.

Literature shows that various factors affect the quality of education and effective teaching. It is evident that some of these factors are teacher-related. For instance, there are several factors that affect teaching, such as: (i) teacher's commitment to teaching (e.g. Rots, Aelterman, Vlerick & Vermeulen, 2007; Vélez-Rendón, 2006; van Veen, Sleegers, Bergen & Klaassen, 2001; Rosenholtz & Simpson 1990; Chapman & Green, 1986; Chapman, 1983, 1984); or (ii) teacher efficacy (e.g. Rots, Aelterman, Vlerick & Vermeulen, 2007; Tschannen-Moran & Woolfolk, 2001); or (iii) teacher's sense of control over classroom practice and self efficacy (for instance, Lee, Dedrick & Smith, 1991); or (iv) teacher's beliefs (e.g. Carless, 2003; Spanneberg, 2002; Handal, 2002; Richardson, 1996); or (v) teacher's preexisting belief (Coburn, 2004); or (vi) teacher's knowledge and beliefs (Ennis, 1994). Teaching is also being affected by such factors as: teacher's unawareness of what is involved in teaching (Al-Qahtani, 1995); teacher's personal set of influence (Grant, 2003); or variety of personal factors (Lewthwaite, 2006). Another teacher-related factor which also affects teaching is teacher's knowledge of subject matter (Vélez-Rendón, 2006).

There are also other factors, indicated or identified as factors within and outside of the classroom. These are like syllabus time, the textbook and the topic, and the resources (Carless, 2003); administrative, curricular, textual, and extra-textual impediments (Al-Qahtani, 1995); disciplinary boundaries (Stodolsky & Grossman, 1995; Siskin, 1994). Additionally, there are factors belonging to the "contextual" category, such as: general

contextual factors (Vélez-Rendón, 2006); teacher preparation and teaching context as well as disposition (Deal & White, 2006); organizational context (Rosenholtz & Simpson, 1990); organizational norms and structures (Grant, 2003), effects (Coburn 2004; Kilgore & Pendleton, 1993); social organization (Lee, Dedrich & Smith, 1991); interplay between personal and environmental factors (Lewthwaite, 2006); teacher training (Rots, Aelterman, Vlerick & Vermeulen, 2007), etc.

In the context of Bangladesh, Rahman (2005) posits that the main problem behind the decline in the quality of education is the professional standards of the teachers. Many scholars and different studies (e.g. DSHE, 2007; Rahman, 2006; Ahmed, 2006; CAMPE, 2006; Rahman, 2005; Ahmed, Ali & Khan, 2005; Dewan, Ashrafunnessa & Hossain, 2005; MoE, 2004) have shown various causes for low student-achievement and low quality of secondary education in Bangladesh. Among these causes, directly related to teachers, are: deficiencies in teachers' skills and capabilities (CAMPE, 2006); overall low academic achievement of teachers (Rahman, 2006); poor quality of teachers (Ahmed, 2006); emphasizing the rote memorization in teaching-learning and assessment system; wide gap between prescribed curriculum and practiced curriculum in classrooms (Rahman, 2006). Although 'Learning Outcomes Based Curriculum' is followed by the schools, most teachers are not aware of the prescribed learning outcomes (Rahman, 2006; MoE, 2004). Besides these, sharp differences exist between teachers in the general government and non-government secondary schools, as well as between teachers in the urban and rural secondary schools in terms of academic qualification, professional training, academic relevancy of teaching and other aspects (DSHE, 2007).

There also exist other major obstacles that affect teaching at general secondary education in Bangladesh. Some of these challenges are: the centralized management and administration policy; poor leadership at all levels, from the micro-level (school) to the macro-level; serious lack of teacher supervision and shortage of personnel for inspection; poor enforcement of rules and criteria for approval of government grant; poor governance and management of schools; and inadequate resource allocation i.e. Bangladesh's expenditure on education is only about 2.7% of GDP, which lags far behind the Asian average of 4.4% (Ahmed, 2006). Additionally, the over-burdened curricula and syllabuses, the moribund state of teacher education, poor-teaching environment, inadequate facilities (e.g. classroom, accommodation, seating arrangement, library, laboratory, learning materials, etc.) affect secondary education (DSHE, 2007; Ahmed, 2006; Rahman, 2006; CAMPE, 2006; MoE, 2004). Therefore, these other obstacles become the context of this study on Social Science teachers' teaching at general secondary level in Bangladesh, which are also faced by teachers of other subjects, like the Social Science teachers, who have to face the problems with similar shortcomings in their teaching.

1.2 Statement of the Problem

The Social Science as synonyms of Social Studies is introduced along with other subjects at the secondary level schools in Bangladesh. Social Studies need to be taught in schools, especially at the present time. Social studies deal with people and their interactions and relationships through time and space (Brewer, 2006). Brewer (2006) asks, "when so many people are concerned with our future, and so many choices are being made that affect our future, isn't it time social studies in elementary school becomes an educational priority?" (p. 298). The significance of studying Social Studies

that Brewer (2006) feels for elementary level is also applicable to the same extent for Social Science at general secondary level in Bangladesh, as the subject assists young students to acquire basic knowledge, skills, democratic values and positive attitudes that they can contribute to their social and national development in future, and take part actively in the global context, as the contributing members of society and the country's responsible citizens..

Armento (1986) found that Social Studies' knowledge include three types of structures: the conceptual networks which are made up of facts, concepts, principles, and their interrelationships; the causal relationships which aid argumentation; and the hierarchical structures which promote organization of large amounts of information. It integrates different content from other fields of knowledge. As such, Social Studies are somehow different from history and other academic disciplines (Thornton, 1993; Seixas, 1993; Wraga, 1993; Whelan, 1992; Nelson, 1990; Shaver & Larkins, 1973; in Seixas, 2001). Therefore, a number of scholars (e.g. Seixas, 2001; Stodolsky & Grossman, 1995; Siskin. 1994; Keller 1991, Little, 1990) consider Social Studies as a complex course of study and criticize it for the difficulties in teaching and researching. Pohan and Bruce (2004) mention that "a general lack of experience coupled with the increased focus of professional development in the areas of language arts and mathematics creates a challenging context for the development of meaningful and effective Social Studies instruction." (p. 32). Gehlbach (2006) also holds that "social studies teachers are faced with two challenging tasks: not only do they have to teach their subject matter, but they also have to convince their students that their discipline is worth learning in the first place." (p. 358). McCall (2006) discusses various obstacles to excellent teaching in elementary Social Studies in the USA by citing different study

findings. Students also often perceive Social Studies as boring and unimportant in comparison with other subject areas (Wolters & Pintrich, 1998; Stodolsky, Salk, & Glaessner, 1991; Schug, Todd, & Beery, 1984; in Gehlbach, 2006). Thus, Social Studies as a form of knowledge, can be a difficult subject to teach and learn in schools, partly due to its structure of knowledge. In this regard, the nature of Social Science at general secondary level education in Bangladesh is also partly a matter of difficulties for effective teaching as this subject integrates different content from six major Social Sciences. It is also implied that Social Studies as well as the Social Science teachers need adequate content and pedagogical knowledge within a favourable classroom context to teach this subject.

McLaughlin (1997) mentions, “current theory holds that students learn best when they have the opportunity to actively construct their own knowledge” (p. 97). It is widely acknowledged that in promoting this kind of student learning, teachers should require adopting a new pedagogical approach (King & Newmann, 2000; Putam & Borko, 2000; Bransford, Brown, & Cocking, 1999; McLaughlin, 1997). Shulman (1987) posits that teaching is the transformation of content into pedagogical form. Teacher’s Subject-to-Pedagogical Content Knowledge (Subject-to-PCK) transformation is considered directly related to students’ learning (Chen & Ennis, 1995). The review of literature discussed in Chapter Two highlights that teacher’ Pedagogical Content Knowledge (PCK) plays an important role to promote quality in secondary education. In Bangladesh, different studies (e.g. CAMPE, 2008, 2006; DSHE, 2007; GoB, 2005) and many scholars (e.g. Rahman, 2006; Ahmed, Ali & Khan, 2005) provide realistic suggestions to enhance the quality of secondary education in Bangladesh. These studies and scholars also reveal that the teachers at the general secondary schools in

Bangladesh possess various limitations in teaching due to the influence of various factors. Nevertheless, the secondary schools teachers' PCK whether they teach Social Science or other subjects, or factors that affect their practice of PCK in teaching was not explored in those literatures. A few scholars (e.g. Zinnah & Osman, 2007a, 2007b), only recently, suggest conducting an in-depth study on teachers' especially secondary level teachers' PCK as well as exploring the Social Science teachers' PCK in teaching Social Science at general secondary level (grades VI to X) education in Bangladesh.

Except those literature, the scarcity of study on PCK of Social Science teachers' or teachers of other disciplines whether at primary, secondary or higher education level in Bangladesh, reveals that teacher's PCK is still an unexplored area in the educational research in Bangladesh. It is argued that the proper solution to a problem comes out from the accurate diagnosis of the problem. As Bangladesh is struggling to implement quality education at different levels including secondary level education in order to get the required mid-level human capital for her sustainable development, therefore, studies on PCK of the secondary school teachers including the Social Science teachers as well as identifying the affecting factors on their application of PCK in teaching can contribute to the development of quality in their teaching that is facilitating to the development of secondary education.

1.3 Rationale of the Study

In Bangladesh, there are 14 public and 54 non-government Teachers' Training Colleges (TTCs) offering teacher education programs for preservice training of secondary school teachers. Some private universities also offer the Bachelor of Education (B.Ed.) program. The Social Science is an elective teaching course among different alternatives in TTCs. In the B. Ed. program of TTCs, Social Science is not compulsory for those teachers who teach this subject in the schools, or who are going to participate in the program if they have prior bachelor's or master's degree from Humanities or Social Science disciplines and intend to begin their career as school teachers. In this circumstance, the Social Science teachers or prospective teachers can achieve the professional degree without studying Social Science; this supports the assumption that they lack Social Science-specific pedagogical knowledge.

CAMPE (2006) reports that still more than 50 % of secondary school teachers serving in Bangladesh were without preservice training like the Bachelor of Education (B. Ed.) professional degree. However, the views of scholars (e.g. Rahman, 2006) and studies (i.e. DSHE, 2007) help to assume that the standard of teachers' training programs in Bangladesh is less supportive to develop proper pedagogical knowledge of the trainees. A new syllabus for the B. Ed. program has been implemented since the 2006-2007 academic session in the TTCs. Presently, most of the TTCs, especially the private TTCs, are facing difficulties in providing the professional degree with the new syllabus (Syllabus, 2006-2007), due to lack of skilled teacher educators, instructional materials, infrastructural limitations, etc. Thus, it seemed that the present situation and the level of capabilities of the TTCs, especially the non-government TTCs, are assumed to be

less suitable to develop the pedagogical knowledge and skills that have been prescribed in the syllabus.

Different initiatives taken by the Government of Bangladesh -- e.g. SESIP I since 2000 to 2006; on-going SESDP; Teaching Quality Improvement in Secondary Education Project (TQI-SEP) since April 2005 to 2011 -- indicate the government's awareness and willingness to solve existing problems in secondary education. The Teaching Quality Improvement in Secondary Education Project (TQI-SEP) has been implemented to improve the overall standard of management of teacher's training centers; and the enhancement of quality and professional competence of teachers, teacher trainers and concerned officers. The respective authority has developed the trainer's manual for each subject based on the findings of their survey on teacher education. A 14-day subject-based Continuing Professional Development (CPD) training for secondary level teachers is still going on. This training program includes pedagogy training and training on content of the respective subject. In pedagogical training, the Social Science teachers are trained on teacher and his/her profession, lesson plan, yearly lesson plan and unique plan, and teaching-learning methods and techniques. Pedagogical training is also provided on classroom management, inclusive teaching, and inclusive learning friendly environment, gender issue, participatory learning, teaching aids, purposes and importance of questioning in teaching-learning, different forms of questioning, and school based assessment of students' learning performance. Furthermore, the training of content sessions for the Social Science teachers are conducted based on 22 among 32 content-specific lesson plans prescribed in the training manual (TQI-SEP, 2007). This training program seems to be supportive enough to develop pedagogical skills of the Social Science teachers. However, the

implementation of the TQI program requires a long time, considering the huge number of secondary teachers. Besides this, there is sparse knowledge about the extent of practice in classroom teaching that the teachers attained from that CPD training.

Morris' (1988) study, mentioned in Kennedy and Kennedy (1996), reveals the difference in attitude demonstrated when teachers were observed putting the curriculum into practice in classroom after their teaching. Teachers in general did not implement the new approach in the classroom. Kennedy and Kennedy (1996) mention that the power of the social norms operating in the school had not been taken into account during the in-service training. The social cognitive theory given by Bandura (1997, 1986) suggests that human achievement depends on interactions between one's behaviors, personal factors and environmental conditions. Therefore, it is needed to take into account all of these aspects for attaining the expected outcome of any program like the government's on-going CPD training program. Thus, the 14-day in-service CPD training program in Bangladesh, although effective, does not ensure the practice of achieved pedagogical knowledge and skills for effective teaching by the teachers, especially by those teachers who have no fundamental professional training. Grant (2003) suggests that professional development opportunities must focus on the substance of teaching and learning, including subject matter knowledge, pedagogy, and Pedagogical Content Knowledge.

Different studies reveal that the teachers at general secondary school level in Bangladesh possess various limitations in teaching due to various causes. Therefore, it is assumed that the Social Science teachers at general secondary school level also possess many shortcomings in teaching practices. These studies and scholars -- e.g.

DSHE, 2007; GOB, 2005; Rahman, 2006 -- also imply that the Government's on-going initiatives do not ensure the application of Social Science teachers' PCK in teaching. Furthermore, the present condition and activities of the Teachers' Training Colleges (TTCs) are assumed less suitable for applying Social Science teachers' PCK in teaching. However, for taking initiatives in improving the quality of teaching, it is a pre-requisite to know the present level of Social Science teachers' PCK, and the factors which affect their PCK in teaching. Therefore, an in-depth investigation is needed to explore Social Science teachers' PCK as well as the influence of different factors on their PCK to enhance the quality of secondary education, which, in turn, will enhance the development of Bangladesh. The researcher of the present study has always been concerned with the teaching of Social Science education at the tertiary level in Bangladesh, and therefore, feels that it is beneficial to explore the PCK of Social Science teachers to enhance the quality of teaching at general secondary school level in Bangladesh.

1.4 Objectives of the Study

The overall objective of this study is to explore the Pedagogical Content Knowledge (PCK) of Social Science teachers who are teaching at general secondary school level (Grades VI to X) in Bangladesh. The specific objectives are to:

- i. investigate the Social Science teachers' PCK in teaching their subject matter.
- ii. identify factors that facilitate or inhibit their PCK in teaching.

1.5 Research Questions

Based on the objectives, two major research questions were addressed in conducting this study. The first research question was:

Q1. To what level do Social Science teachers possess PCK for teaching their subject in terms of components suggested by Shulman (1987), namely:

Q1.1 comprehending the content?

Q1.2 understanding the curricular aspects?

Q1.3 considering and selecting content-specific instructional repertoires to represent a topic?

Q1.4 understanding different characteristics of students?

Q1.5 understanding school and classroom contexts?

Q1.6 adapting and tailoring their instructional repertoires according to different characteristics of students and contexts?

Q1.7 applying content-specific assessment techniques in instruction?

Q1.8 reflection after teaching a topic?

Q1.9 new comprehensions in their new teaching practices?

Another research question of concern to this study was:

Q.2 What factors assist or inhibit the practice of each component of PCK possessed by the Social Science teachers?

1.6 Significance of the Study

This study has an ample scope for contributing to general secondary education of Bangladesh. In terms of practical significance, this study can help to understand how the Social Science teachers teach, and what level of PCK they practise in teaching. As the government's present efforts are mainly to enhance quality in education, therefore, this study may contribute to the policy and decision-makers and the decision-implementers of management and administrative bodies at various levels in Education

in taking necessary steps for further development of pedagogical knowledge and skills of Social Science teachers.

In addition, this study might be able to facilitate the Government's on-going continuing professional development (CPD) training for the teachers at general secondary school level under Teaching Quality Improvement in Secondary Education Project (TQI-SEP). Furthermore, the present study would also be helpful in developing the teachers' teaching knowledge and skills through the Government's on-going Secondary Teaching Certificate (STC) course. The respective decision-makers of the programs will be able to reconstruct their program by getting ideas about the core needs in pedagogical training of Social Science teachers as well as the teachers of other subjects. Similarly, the Non-Government Teachers' Registration and Certificate Authority (NTRCA) can be assisted by knowing and giving the importance on the required content and pedagogical knowledge of teaching in its examinations for preparing the panel of selected registered teacher-candidates for the general non-government secondary schools.

This study has the potential to contribute to the TTCs and the Higher Secondary Teachers' Training Institutes (HSTTIs). The objectives of this study is to focus on the PCK of Social Science teachers at general secondary level; so the respective authority has the scope for reconsidering and revising the conventional professional teacher education program and introducing realistic need-based teacher education program in the TTCs as well as effective training in the HSTTIs. Its outcome is that the in-service Social Science teachers and the teachers of other subjects will be trained to obtain the required teaching knowledge, including PCK, and skills. Not only this, the prospective

and novice teachers will also receive these sorts of teaching knowledge and skills. Thus, the teaching standard of the teachers will be improved which will ultimately enhance the quality of secondary education.

Most importantly, there is a contextual and theoretical significance of this study, which is, that it will be carried out within the context of a developing country like Bangladesh. Most previous studies related to teachers' PCK of different disciplines as well as Social Studies have been conducted in the developed countries. Gudmundsdottir and Shulman (1987), and Gudmundsdottir (1988, 1991a, 1991b) also investigate the high school Social Studies teachers' PCK within the context of the USA. The social and educational context of developed countries like the USA is dissimilar to that of Bangladesh. Thus, the present study has the scope to contribute to the body of knowledge related to PCK in the context of inquiring Social Science teachers' PCK in teaching at general secondary school level in Bangladesh by applying Shulman's model of Pedagogical Reasoning and Action (PRA) to investigate the problem.

1.7 Definition of Key Terms

Different key terms are used in this study. These key terms help to understand the perspective as well as the phenomena of the study under investigation. The terms are defined as follows:

1.7.1 The General Secondary Level Education

In Bangladesh, the general secondary level of education is the main stream among other streams like *madrassa* education, technical-vocational education and training, and

another minor stream titled as “English Medium” outside of the national educational structure. The stage of education after the primary education and immediately preceding the higher education is known as Secondary level Education (Rahman, 2005). The general secondary level of education comprises a 7-year cycle of formal schooling within three sub-levels: 3-year Junior Secondary, usually known as Lower Secondary (grades VI to VIII); 2-year Middle Secondary (grades IX & X); and 2-year Higher Secondary, known as intermediate (grades XI & XII). The junior secondary sub-level of education refers to the first stage of the general secondary education. General secondary education up to junior secondary sub-level is unified. However, diversification starts from middle secondary sub-level (grades IX & X) under Humanities, Science and Business Studies. In this study, both ‘junior secondary’ and ‘middle secondary’ sub-levels are considered as general secondary level education which caters for adolescents of 11-17 years of age group. The general secondary education is provided through 98.18% private institutions of total secondary institutions (DSHE, 2007). All of these private/non-government secondary institutions, as well as the rest of the government institutions, are situated in both urban and rural areas.

1.7.2 Social Science

At the general secondary level education (junior and middle secondary sub-levels) in Bangladesh, Social Science is taught as a synonym of “Social Studies” as it possesses the same nature and characteristics of Social Studies. Social Studies is the integrated study of the Social Sciences and Humanities to promote civic competence. Within the school program, Social Studies provides coordinated, systematic study drawing upon such disciplines as archaeology, anthropology, history, philosophy, economics,

geography, law, political science, sociology, psychology, religion, as well as appropriate content from the humanities, mathematics, and natural sciences. The primary purpose of Social Studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world (NCSS, 1992). However, at the general secondary level education in Bangladesh, Social Science is also studied as an integrated subject that draws upon its subject matter from six major Social Sciences, such as: Sociology, History, Geography, Civics, Economics and Demography. This subject has been introduced to help students develop as active and responsible citizens within their communities, locally, nationally, and globally, in a complex and changing world.

1.7.3 The Social Science Teacher's Pedagogical Content Knowledge

Pedagogical Content Knowledge (PCK) refers to teachers' content understanding and selecting and applying content-specific instructional repertoires to represent the content in an understandable way of students and possessing related curricular knowledge, while considering students' characteristics within the classroom context. PCK also includes teachers' knowledge about assessment techniques and reflection on teaching activities, and students' overall performance. Teachers' new comprehensions based on reflection on their teaching assist in the development of PCK and its practice in a new teaching assignment. This term refers to Pedagogical Content Knowledge that the Social Science teachers at general secondary level in Bangladesh possess and practise in teaching a particular lesson or topic of Social Science.

1.7.4 Factors

In this study, factors refer to those key items/phenomena which actively contribute to or prevent the development of Pedagogical Content Knowledge (PCK) of the Social Science teachers and their effective practice of PCK in teaching Social Science. As a consequence, their classroom teaching is being affected by the factors. The literature has focused on different factors which can be classified into two general types: teacher-related factors and non teacher-related factors, both within and outside the classroom.

1.8 Limitations of the Study

The study was subject to the following limitations:

- 1.8.1 The study was limited to examine five Social Science teachers' PCK in teaching the subject matter. The sample of students in the classroom of the participants was not included in carrying out this study.
- 1.8.2 The scope of the study was limited to only the general secondary level (grades VI to X) education in Bangladesh. Two other streams like *madrasa* education and technical-vocational education and training, and their contextual realities were not considered.

Therefore, this study possesses limitations in the case of generalizing its findings and recommendations within the entire context of the general secondary level education in Bangladesh. Rather, the findings of this study and recommendations that will be suggested based on the findings can be generalized only to the Social Science teachers who teach this subject within similar context at different secondary schools in Bangladesh. This aspect will be discussed in Chapter Five.

1.9 Organization of the Chapters

The entire study comprises five chapters. Chapter One carries background of the study, statement of the problem, rationale of the study, objective of the study, research questions, significance of the study, definition of the key terms and limitations of the study. The literature on this subject is reviewed extensively in Chapter Two. The theoretical research model, as well as proposed conceptual model for the present study, is mentioned in this chapter. In Chapter Three, the methodology of the study is discussed.

The output of a pilot case study is also been discussed briefly in this chapter. As an attempt to answer to the research questions, collected data are illustrated and analyzed in Chapter Four. And finally, the findings based on the research questions are summarized and discussed in Chapter Five. Figure 1.1 shows the organization of the intended study as follows:

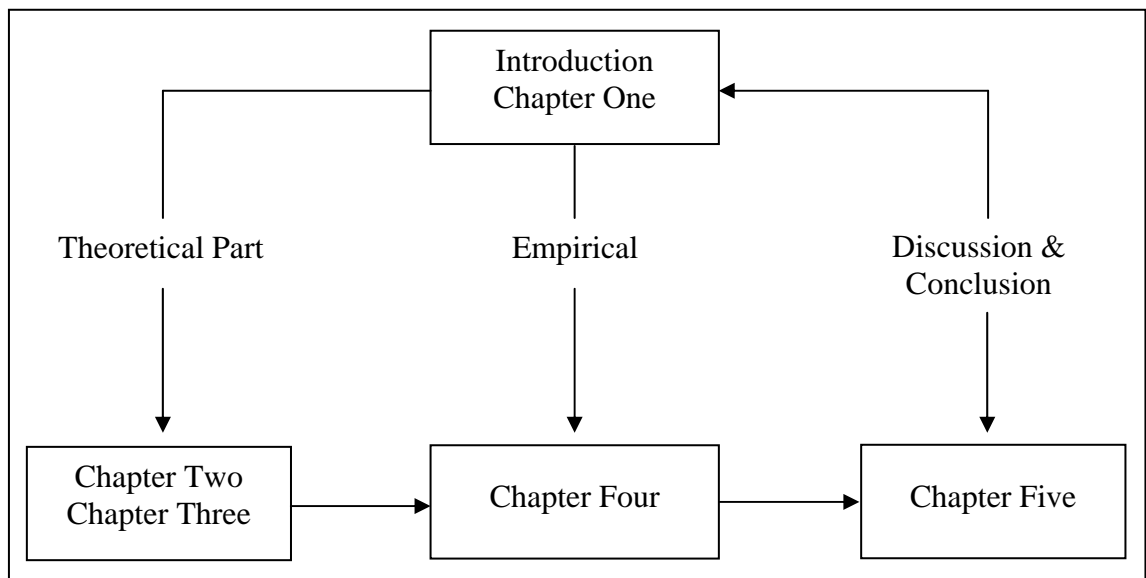


Figure 1.1: Organization of the Chapters

1.10 Chapter Summary

Bangladesh needs to harmonize its secondary education, keeping pace with international and global efforts to enable her secondary education to successfully meet the diverse home and global demands of the 21st century. Many initiatives taken by the Government of Bangladesh over the last two decades have brought substantial quantitative development in primary and secondary education. At present Bangladesh has engaged her efforts mainly to achieve the quality in education. Various factors that impede the quality of teaching at the general secondary school level have been identified as a whole. It is assumed that Social Science teachers at general secondary level in Bangladesh also face these problems.

The Pedagogical Content Knowledge (PCK), an important and discrete domain of teachers' knowledge bases, has been recognized essential for quality teaching of different subjects including Social Studies. The inadequacy of studies on this significant teachers' knowledge base in Bangladesh makes it difficult to know to what extent the Social Science teachers at general secondary level in Bangladesh possess and practise their PCK in teaching as well as which factors affect their PCK in teaching. It is thus an utmost need to know the present state of the Social Science teachers' PCK in teaching, and factors that might impede the practice of PCK in their teaching, for taking proper steps to develop and practice of their PCK, which is one of the means for improving their quality of teaching at general secondary schools. In this context, the present chapter has thus highlighted the problem statement, rationale of the study, and significance of study. This chapter has also presented the organization of the planned study.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter starts with the discussion on teaching as a profession and presents the essential knowledge, understanding, skills, values and attitude for teaching of Social Studies provided by guidelines of the National Council for the Social Studies (NCSS, 1992, 2008). A brief description of the Social Science including teaching methods and techniques, and assessment techniques which have been prescribed in the present Social Science curricula at general junior secondary (grades VI to VIII) and middle secondary sub-levels (grades IX & X) in Bangladesh are mentioned in this regard. This chapter also reveals that teaching is a profession and teachers need the knowledge bases for teaching. Among the knowledge bases, Pedagogical Content Knowledge (PCK) has the vital role in teaching of different subjects including Social Studies. Therefore, an extensive discussion on PCK has been presented in this chapter as it is concerned with this study. Finally, a conceptual model has been proposed based on Shulman's (1987) model of Pedagogical Reasoning and Action (PRA) to carry out the present study.

2.1 Teaching as a Profession

Although the history of the teaching profession is very old, yet educational research has shed light on this issue only after a long period. Abbot (1988) defines a profession as “an exclusive occupational group applying somewhat abstract knowledge to particular cases” (p. 56). According to Abbot's model of professional knowledge and jurisdictional authority for professionalization, teachers should have the jurisdictional authority over particular kinds of knowledge and skill and over their particular work

with students as clients; and they must be able to demonstrate appropriate knowledge and skills and receive jurisdictional recognition for practice in order to function in the teaching profession (in Ongel, 2003).

In general, professional responsibilities of teachers are concerned with providing knowledge and developing skills and attitude through subject matter. As such, there is no scope for an assumption that anyone can be a teacher without knowledge about how to teach a subject. Research shows that highly knowledgeable and highly skilled teachers do make a difference in terms of student learning (Brophy & Good, 1986). Thus, professional development of teachers related to subject matter and pedagogy is needed to improve their knowledge of teaching to enhance students' learning.

During the 1980s, new ways of thinking about teaching and learning began to emerge and gained prominence. Based on a large number of studies, Rosenshine and Stevens (1986) summarize six teaching functions that provide useful guidelines for effective teaching, especially in well-structured content areas. In line with the teaching functions, Shuell (1988, 1992) provides 12 learning functions, which represent the various psychological processes and put importance on active and cooperative role of both teacher and students to make teaching effective.

Drawing from the major philosophical and psychological beliefs of how human beings learn, Joyce and Weil (1986) categorize four “families” of instructional strategies, namely (i) the Information-Processing Family, (ii) the Personal Family, (iii) the Social Family, and (iv) the Behavioral Systems Family. The elements of behaviorism, cognitivism, and humanism are merged with these four families of strategies to provide